

AREA OF FOCUS #7

Peptic Ulcer Disease and Helicobacter Pylori

In the U.S. population, *H. pylori* infection is much more common among Mexican Americans (62 percent) and non-Hispanic blacks (53 percent) than among non-Hispanic whites (26 percent). Non-Hispanic blacks are also more likely to be infected with virulent *H. pylori* strains.

Up to 10 percent of the U.S. population is afflicted with peptic ulcer disease at some time during their lives. It is estimated that at least 50 percent of peptic ulcer disease in the United States is caused by *H. pylori* infection.

H. pylori infection increases the risk of stomach cancer. In the United States, the incidence of stomach cancer is about twice as high among non-Hispanic blacks as it is among non-Hispanic whites. American Indians and Mexican Americans are also at increased risk.

While the prevalence of *H. pylori* infection appears to be declining among non-Hispanic whites, no such decline has been found among minority groups.

Research Goal 1

To prevent the transmission of *H. pylori*

Current Activities

NIDDK is currently supporting several studies of *H. pylori* infection in minority populations. In a study of Mexican-American children, investigators are exploring factors that influence the acquisition and persistence of *H. pylori* in children from infancy until age 3. In addition, an ongoing epidemiological study of infection in Alaska Natives is examining the natural history of *H. pylori* infection in this population. In partnership with CDC, NIDDK is co-funding a study of the prevalence of *H. pylori* infection in the United States.



Potential New Initiatives

1. Determine how *H. pylori* is transmitted and persists.

Expected Outcome

Better understanding of the mode of infection by *H. pylori* and of the factors that contribute to persistence of infection, as well as insight into factors leading to re-infection in high-risk populations.

Action Plan

Mechanism of funding will be by a PA/RFA to conduct epidemiological studies.

2. Investigate the racial and ethnic differences in genetic and environmental factors that contribute to the higher prevalence of *H. pylori* infection in minority populations. Track the prevalence and incidence of *H. pylori* infection in minority populations and examine barriers to its prevention and elimination in these groups.

Expected Outcome

Reduction in incidence and prevalence of *H. pylori* infection in minority populations.

Action Plan

Mechanism of funding will be by a PA/RFA to conduct epidemiological and intervention studies.

Research Goal 2

To reduce the complications of *H. pylori* infection in minority populations

Current Activities

None.

Expected Outcome

Reduction in the incidence of peptic ulcers.

Action Plan

Mechanism of funding will be by a PA/RFA.

Potential New Initiatives

1. Identify environmental, bacterial, and host genetic factors that increase the risk of *H. pylori*-related ulcers. Determine effective strategies to reduce the incidence of such ulcers in minority populations.

2. Identify environmental, bacterial, and host genetic factors that increase the risk of *H. pylori*-related stomach cancer. Determine effective strategies to reduce the incidence of such cancers.

Expected Outcome

Reduction in the incidence of stomach cancer.

Action Plan

Mechanism of funding will be by a PA/RFA.

Public Information and Outreach Goal

To increase awareness of the causes and treatment of peptic ulcer disease in minority populations who are disproportionately affected

Current Activities

The Center for Disease Control and Prevention has the lead role in information and education activities in peptic ulcer disease. NIDDK's National Digestive Diseases Information Clearinghouse publishes a booklet about peptic ulcer disease in English and in Spanish.

Potential New Initiatives

Coordinate the dissemination of information about peptic ulcer disease with CDC.

Action Plan

Develop culturally appropriate materials for minority audiences.